



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,745	10/15/2001	Anthony John Peach	GH-01383	8923

23117 7590 07/28/2004

NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER

SINGH, SUNIL

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,745

Applicant(s)

PEACH ET AL. *cf*

Examiner

Sunil Singh

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-49 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 16 is objected to because of the following informalities: claim 16 the word "type" renders the claim indefinite. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16-20, 32-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Bennett (US 3429390).

Bennett discloses a rock boring device comprising a disc cutter (see Fig. 1), the disc cutter is structured to be driven in an oscillating manner and movable in a nutating manner (this is true since the cutter is at an angle and the cutter is position at an axis offset to the longitudinal axis) (see col. 1 line 14, col. 3 lines 5, 48, 65).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3673

5. Claims 16-20, 32-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zublin or Harris or Willis or Beeman or Bechem et al. (US 2336335, 4096917, 4168755, 4372403, 4796713) in view of Russian document (SU581263)

Zublin, Harris, Willis, Beeman and Bechem et al. all disclose the invention substantially as claimed. However, they all are silent about their cutting means being a disc cutter.

Russian document '263 teaches a disc cutter (9). It would have been considered obvious to one of ordinary skill in the art to modify either Zublin or Harris or Willis or Beeman or Bechem et al. by substituting the cutter (disc) as taught by Russian document for the cutter as disclosed by either Zublin or Harris or Willis or Beeman or Bechem et al. since it is an obvious design choice to substitute one known cutter for another known cutter.

6. Claims 21-27, 30-31, 43-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoebe '831 in view of Bennett.

Stoebe discloses a rock boring machine, a rock boring device is mounted on a boom, the boom can pivot about both a horizontal and vertical axis. The rock boring device is pivotable about a transverse axis to the boom. The rock boring machine is anchored (see Figs. 1,2). Stoebe discloses the invention substantially as claimed. However, Stoebe's rock boring device is not a rotary disc that can oscillate and nutate. Bennett teaches an oscillating and nutating rotary disc cutter (see above discussion). It would have been considered obvious to one of ordinary skill in the art to modify Stoebe by

Art Unit: 3673

substituting the rock boring device as taught by Bennett for the rock boring device disclosed by Stoebe since it cuts more effectively.

7. Claims 21-27, 30-31, 43-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoebe '831 in view of Zublin or Harris or Willis or Beeman or Bechem et al (as modified by Russian document '263).

Stoebe discloses a rock boring machine, a rock boring device is mounted on a boom, the boom can pivot about both a horizontal and vertical axis. The rock boring device is pivotable about a transverse axis to the boom. The rock boring machine is anchored (see Figs. 1,2). Stoebe discloses the invention substantially as claimed. However, Stoebe's rock boring device is not a rotary disc that can oscillate and nutate. Zublin, Harris, Willis, Beeman and Bechem et al. (as modified by Russian document) all teach an oscillating and nutating rotary cutter. It would have been considered obvious to one of ordinary skill in the art to modify Stoebe by substituting the rock boring device as taught by either Zublin or Harris or Willis or Beeman and Bechem et al. (as modified by Russian document) for the rock boring device disclosed by Stoebe since it cuts more effectively.

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dubois (US 3663054) in view of Bennett..

Dubois discloses a rock boring machine, a rock boring device is mounted on a boom, a plurality of rock boring devices are carried by the rock boring machine (see Fig. 1).

Art Unit: 3673

Dubois discloses the invention substantially as claimed. However, Dubois's rock boring devices are not rotary discs that can oscillate and nutate. Bennett teaches an oscillating and nutating rotary disc cutter. It would have been considered obvious to one of ordinary skill in the art to modify Dubois by substituting the rock boring device as taught by Bennett for the rock boring devices disclosed by Dubois since it cuts more effectively.

9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dubois (US 3663054) in view of Zublin or Harris or Willis or Beeman or Bechem et al (as modified by Russian document).

Dubois discloses a rock boring machine, a rock boring device is mounted on a boom, a plurality of rock boring devices are carried by the rock boring machine (see Fig. 1).

Dubois discloses the invention substantially as claimed. However, Dubois's rock boring devices are not rotary discs that can oscillate and nutate. Zublin, Harris, Willis, Beeman and Bechem et al (as modified by Russian document) all teach an oscillating and nutating rotary disc cutter. It would have been considered obvious to one of ordinary skill in the art to modify Dubois by substituting the rock boring device as taught by either Zublin or Harris or Willis or Beeman or Bechem et al (as modified by Russian document) for the rock boring devices disclosed by Dubois since it cuts more effectively.

Art Unit: 3673

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6062650) in view of Bennett.

Smith et al. discloses a rock boring machine, a rock boring device is mounted on a boom, the angle of the rock boring device is controlled by a computer program (see col. 9 line 10+). Smith et al. discloses the invention substantially as claimed. However, Smith et al. rock boring device is not a rotary disc that can oscillate and nutate. Bennett teaches an oscillating and nutating rotary disc cutter. It would have been considered obvious to one of ordinary skill in the art to modify Smith et al. by substituting the rock boring device as taught by Bennett for the rock boring device disclosed by Smith et al. since it cuts more effectively.

11. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6062650) in view of Zublin or Harris or Willis or Beeman or Bechem et al (as modified by Russian document '263).

Smith et al. discloses a rock boring machine, a rock boring device is mounted on a boom, the angle of the rock boring device is controlled by a computer program (see col. 9 line 10+). Smith et al. discloses the invention substantially as claimed. However, Smith et al. rock boring device is not a rotary disc that can oscillate and nutate. Zublin, Harris, Willis, Beeman and Bechem et al (as modified by Russian document) all teach an oscillating and nutating rotary disc. It would have been considered obvious to one of ordinary skill in the art to modify Smith et al. by substituting the rock boring device as taught by either Zublin or Harris or Willis or Beeman or Bechem et al (as

Art Unit: 3673

modified by Russian document) for the rock boring device disclosed by Smith et al. since it cuts more effectively.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 16-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6561590. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both call for a rock boring device comprising a disc cutter which is structured to be driven in an oscillating manner and movable in a nutating manner.

Response to Arguments

14. Applicant's arguments with respect to claims 16-49 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Art Unit: 3673

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (703) 308-4024.

The examiner can normally be reached on Monday through Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sunil Singh



Patent Examiner
Art Unit 3673

SS
§§

7/22/2004